

## ABSTRACT

A planar lightwave circuit is provided which can be easily fabricated by an existing planar-lightwave-circuit fabrication process, which can lower the propagation loss of signal light and which can convert inputted signal light so as to derive desired signal light. A planar lightwave circuit having a core and a clad which are formed on a substrate, has input optical waveguide(s) (111) which inputs signal light, mode coupling part (112) for coupling a fundamental mode of the inputted signal light to a higher-order mode and/or a radiation mode, or mode re-coupling part (113) for re-coupling the higher-order mode and/or the radiation mode to the fundamental mode, and output optical waveguide(s) (114) which outputs signal light. The mode coupling part or the mode re-coupling part is an optical waveguide which has core width and/or height varied continuously.